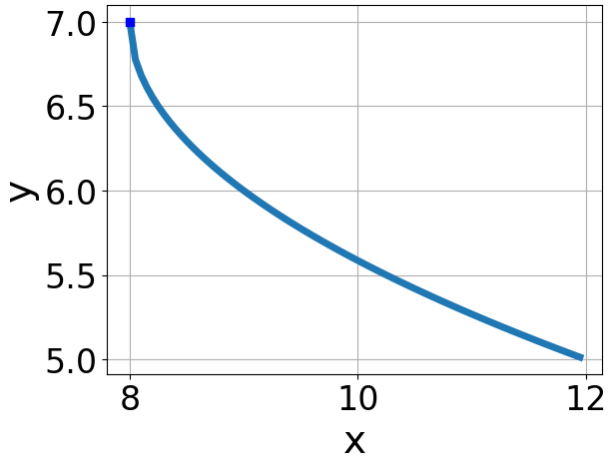
1. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-8}+7$

B. $f(x) = -\sqrt[3]{x+8}+7$

C. $f(x) = \sqrt[3]{x-8}+7$

D. $f(x) = \sqrt[3]{x+8}+7$

E. None of the above

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2. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-49x^2+40} - \sqrt{-21x} = 0$$

A. $x \in [0.85, 1.23]$

B. $x_1 \in [-0.89, -0.53]$ and $x_2 \in [-0.86, 3.14]$

C. $x_1 \in [0.13, 1.01]$ and $x_2 \in [-0.86, 3.14]$

D. All solutions lead to invalid or complex values in the equation.

E. $x \in [-0.89, -0.53]$

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3. What is the domain of the function below?

$$f(x) = \sqrt[7]{8x-9}$$

A. $(-\infty, \infty)$

B. The domain is $(-\infty, a]$, where $a \in [0.82, 0.93]$

C. The domain is $[a, \infty)$, where $a \in [0.05, 0.96]$

D. The domain is $(-\infty, a]$, where $a \in [1.04, 1.86]$

E. The domain is $[a, \infty)$, where $a \in [1.03, 1.14]$

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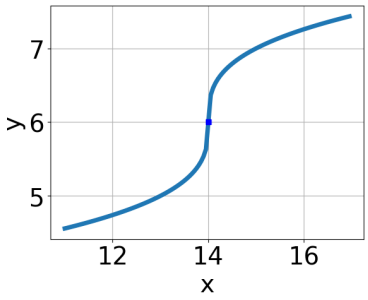
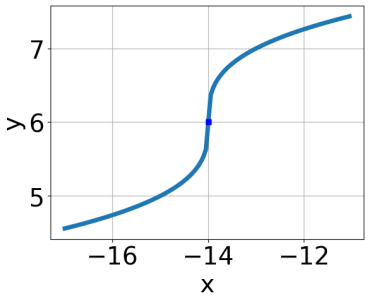
4. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x - 14} + 6$$

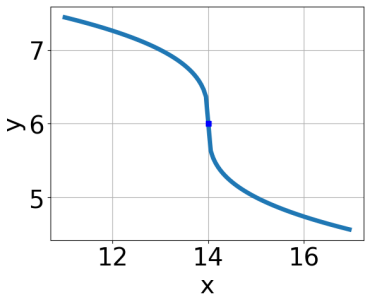
A.



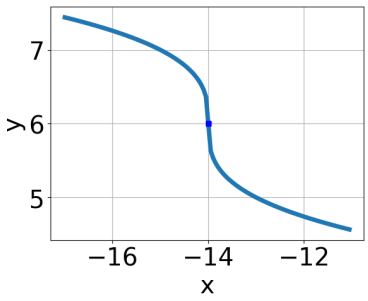
C.



B.



D.



E. None of the above.

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5. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-6x + 5} - \sqrt{-3x - 5} = 0$$

A. $x \in [2.7, 4.1]$

B. $x_1 \in [0.4, 1.5]$ and $x_2 \in [1.33, 5.33]$

C. $x \in [-0.6, 0.3]$

D. All solutions lead to invalid or complex values in the equation.

E. $x_1 \in [-3.3, -1.4]$ and $x_2 \in [-1.17, 2.83]$

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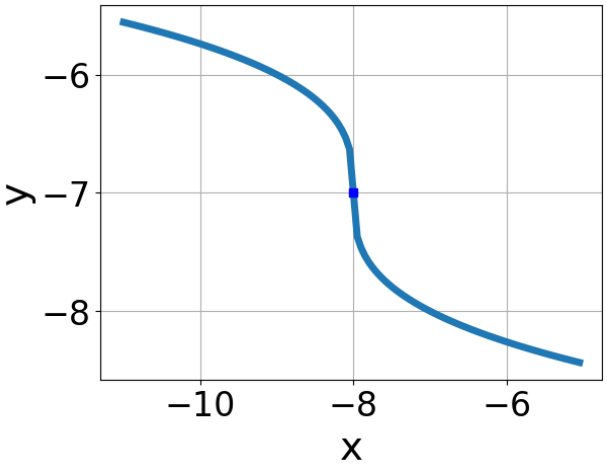
6. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x-8} - 7$

B. $f(x) = -\sqrt{x+8} - 7$

C. $f(x) = \sqrt{x+8} - 7$

D. $f(x) = -\sqrt{x-8} - 7$

E. None of the above

---

7. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{8x-7} - \sqrt{5x+5} = 0$$

A. $x \in [0.4, 0.75]$

B. $x \in [4, 4.36]$

C. $x_1 \in [-1.21, -0.69]$ and $x_2 \in [-2.12, 1.88]$

D. $x_1 \in [0.83, 1.02]$ and $x_2 \in [3, 9]$

E. All solutions lead to invalid or complex values in the equation.

---

8. What is the domain of the function below?

$$f(x) = \sqrt[5]{-5x - 9}$$

A. $(-\infty, \infty)$

B. The domain is $(-\infty, a]$, where $a \in [-1.9, -1.1]$

C. The domain is $(-\infty, a]$, where $a \in [-1.3, -0.3]$

D. The domain is $[a, \infty)$, where $a \in [-2.48, -0.56]$

E. The domain is $[a, \infty)$, where $a \in [-1.03, -0.07]$

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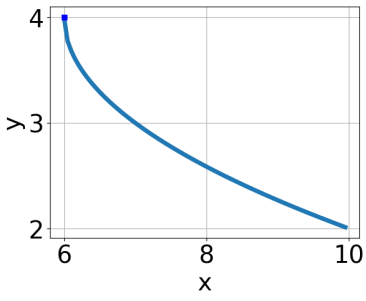
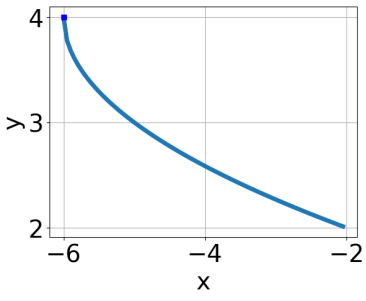
9. Choose the graph of the equation below.

$$f(x) = -\sqrt{x - 6} + 4$$

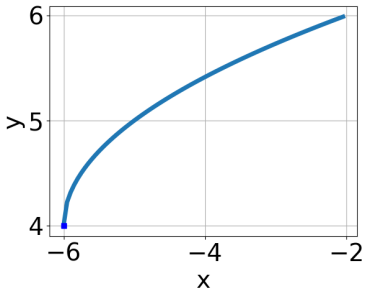
A.



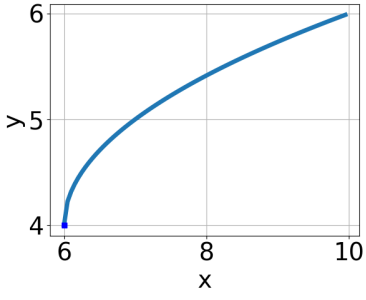
C.



B.



D.



E. None of the above.

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10. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-35x^2 + 54} - \sqrt{33x} = 0$$

A. $x \in [-3.9, -1]$

B. $x_1 \in [-0.1, 1]$ and $x_2 \in [1.56, 2.76]$

C. All solutions lead to invalid or complex values in the equation.

D. $x_1 \in [-3.9, -1]$ and $x_2 \in [0.6, 1.05]$

E. $x \in [-0.1, 1]$